

Office Action Summary	Application No.	Applicant(s)	
	10/721,106	VIC ET AL.	
	Examiner	Art Unit	
	JYOTHSNA A. VENKAT	1619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 02 November 2009.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-3,5,8-12,14,22,23,30,32 and 35 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-3, 5, 8-12, 14, 22-23, 30, 32 and 35 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date 1/13/10.

5) Notice of Informal Patent Application

6) Other: _____.

DETAILED ACTION

In view of Pre-Appeal Brief Review, prosecution is reopened.

Status of claims

Claims 6-7, 24-29, 31 and 33-34 are withdrawn from consideration as being drawn to non-elected species (**election without traverse**). Claims 1-3, 5, 8-12, 14, 22-23, 30, 32 and 35 are examined in the application. Generic claims are examined to the extent that it reads on the elected species, which are:

- (1) dye derivatives as the cosmetically active compound;
- (2)(a) chemical activation as the method of non-reducing activation;
- (2)(b) polyalkyleneimines as the compound capable of chemical non-reducing activation of hair; and
- (3) nucleophilic substitution reactions as the covalent bond formation.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3, 5, 8-12, 14, 22-23, 30, 32 and 35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

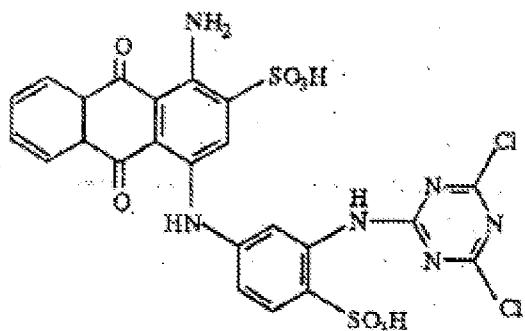
Claim 1 recite the limitation " b) applying to the activated hair at least one cosmetically active compound comprising at least one functional group capable of forming at least one covalent bond with the activated hair". Applicants' elected "dye derivatives "as the cosmetically active compound. Applicants have not described the claimed cosmetically activated compound, which is dye derivatives comprising "at least one functional group capable of forming at least one covalent bond with the activated hair" in a manner that would indicate they were in possession of the full scope of this genus.

Regarding the requirement for adequate written description of chemical entities, Applicant's attention is directed to the MPEP §2163. In particular, Regents of the University of California v. Eli Lilly & Co., 119 F.3d 1559, 1568 (Fed. Cir. 1997), cert. denied, 523 U.S. 1089, 118 S. Ct. 1548 (1998), holds that an adequate written description requires a precise definition, such as by structure, formula, chemical name, or physical properties, "not a mere wish or plain for obtaining the claimed chemical invention." Eli Lilly, 119 F.3d at 1566. The Federal Circuit has adopted the standard set forth in the Patent and Trademark Office ("PTO") Guidelines for Examination of Patent Applications under the 35 U.S.C. 112.1 "Written Description" Requirement ("Guidelines"), 66 Fed. Reg. 1099 (Jan. 5, 2001), which state that the written description requirement can be met by "showing that an invention is complete by disclosure of sufficiently detailed, relevant identifying characteristics," including, *inter alia*, "functional characteristics when coupled with a known or disclosed correlation between function and structure..." Enzo Biochem, Inc. v. Gen-Probe Inc., 296 F.3d 316, 1324-25 (Fed. Cir. 2002) (quoting Guidelines, 66 Fed. Reg. at 1106 (emphasis added)). Moreover, although Eli Lilly and Enzo were decided within the factual context of DNA sequences, this does not preclude

extending the reasoning of those cases to chemical structures in general. Univ. of Rochester v. G.D. Searle & Co., 249 Supp. 2d 216,225 (W.D.N.Y. 2003).

In the instant case, the specification at paragraph [034] describes cosmetically active compound as "dye derivatives" without describing the derivative but under example 1 describes Reactive Blue 4 dye and at [062] describe the structure as follows:

[062] The Reactive Blue 4 dye is a dye comprising a chlorotriazine functional group, having the following formula:



Specification at paragraph [025] teaches that the functional groups of the at least one cosmetically active compound, which is in the instant case is dye derivatives comprise at least one at least one electrophilic center (in the instant case it is triazine ring having chloro groups) and specification at paragraph [026] lists various functional groups that are also claimed in claim 3 (in the instant case the functional group is triazine group). Therefore from the above teaching, the cosmetically active compound comprising at least one functional group capable of forming covalent bond is reactive Blue dye and not Reactive Blue 4 dye having various functional groups. See below for the functional groups.

[026] The functional group(s) may, for example, be chosen from the following functional groups:

- epoxides;
- aziridines;
- vinyls and activated vinyls, derived from acrylonitrile compounds, acrylic esters, methacrylic esters, crotonic acids, crotonic esters, cinnamic acids, cinnamic esters, styrene and its derivatives, butadiene, vinyl ethers, vinyl ketones, and maleic esters;
- carboxylic acids;
- acetals;
- hemiacetals;
- disulphides;
- aminals;
- hemiaminals;
- cyclic carbonates;
- lactones;
- thiolactones;
- azlactones;

- thioethers;
- thiocyanates;
- imines;
- succinimides;
- glutimides;
- oxazines;
- oxazolines;
- ketones;
- oxaziniums;
- oxazoliniums;
- aldehydes;
- functional groups of the formula $-RX$, in which R is chosen from alkyl radicals, aryl radicals, and aralkyl radicals and X is chosen from alkyl, aryl and aralkyl halide functional groups, wherein the halide is chosen from I, Br, and Cl;
- $-OSO_3R'$ in which R' is chosen from hydrogen atoms and alkyl radicals;
- $-OSO_2R''$ in which R'' is chosen from hydrogen atoms, alkyl radicals, and aryl radicals;
- $-N^+(R''')_2$ in which R''' is chosen from alkyl radicals and aryl radicals;
- $-OPO(OR''')_2$ in which R''' is chosen from hydrogen atoms and alkyl radicals;
- halide functional groups of at least one unsaturated ring, wherein the ring may, for example, be a carbon-based ring or a heterocycle of formula $-R^{(m)}X'$, wherein R^(m) is chosen from unsaturated carbocyclic radicals and unsaturated heterocyclic radicals, and X' is chosen from I, Br, and Cl. Mention may be made of, for example, chlorotriazine, chloropyrimidine, chloroquinoxaline and chlorobenzotriazole functional groups; and
- sulphonyl halide functional groups of formula $-SO_2X'$, in which X' is chosen from F and Cl.

From the above recitation of functional groups dye derivatives is the reactive blue 4 dye and this has the functional group chlorotriazine and chlorotriazine has the electrophilic center and this dye forms the covalent bond with the activated hair. There is no description in the instant specification to any dye derivative other than example1 that has the functional groups recited at [026]. What are these dye derivatives and what is the electrophilic center and what are the functional groups? While one compound is specifically disclosed there is no disclosure of "A process for cosmetic treatment of hair comprising : a) producing activated hair by non-reducing activation of hair, where in the non-reducing activation is chemical activation comprising applying to the hair at least one polyalkylenimine, and b) applying to the activated hair at least one cosmetically active compound comprising at least one functional group capable of forming at least one covalent bond with the activated hair, wherein the at least one covalent bond is obtained after a nucleophilic substitution reaction and wherein the cosmetically activated compound is chosen from dye derivatives".

There is no description to other dye derivatives comprising any functional groups or any other dye derivative if any, fall into the genus of "comprising at least one functional group capable of forming at least one covalent bond with the activated hair". No other compounds are described in such a way as to allow one skilled in the art to ascertain that applicant is in possession of the entire scope of the claimed genus. Applicant has not described this genus in a manner that would allow one skilled in the art to immediately envisage the compounds contemplated for use. As such, the claims lack adequate written description for the myriad of compounds embraced by the phrase b) applying to the activated hair at least one

cosmetically active compound comprising at least one functional group capable of forming at least one covalent bond with the activated hair, wherein the at least one covalent bond is obtained after a nucleophilic substitution reaction and wherein the cosmetically activated compound is chosen from dye derivatives" and wherein the functional group of forming the at least one covalent bond is all the functional groups claimed in claims 3.

The description requirement of the patent statute requires a description of an invention, not an indication of a result that one might achieve if one made that invention. See *In re Wilder*, 736, F.2d 1516, 1521,222 USPQ 369, 372-73 (Fed. Cir. 1984) (affirming rejection because the specification does "little more than outlin[e] goals appellants hope the claimed invention achieves and the problems the invention will hopefully ameliorate.") Accordingly, it is deemed that the specification fails to provide adequate written description for the genus of the claims and does not reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the entire scope of the claimed invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 5, 8-12, 14, 22-23, 30, 32 and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The phrase " at least one activated compound comprising at least one functional group capable of forming at least one covalent bond with the activated hair lack clarity and ambiguous, when the cosmetically active compound examined is drawn to elected species " dye derivatives", since specification describes reactive blue 4 dye and this has chlorotriazine group. The structure

of reactive blue 4 dye is the structure shown on page 13 and chlorotriazine has the electrophilic center due to the presence of chloro groups and the functional groups capable of forming covalent bond is chlorotriazine group. Therefore "the cosmetically activated compound comprising at least one functional group capable of forming at least one covalent bond with the activated hair "is dye derivative, which is reactive 4 Blue dye.

What is the structure of reactive 4 Blue dye? In response to this rejection, applicants are requested to provide documentation whcih shows reactive 4 Blue dye structure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JYOTHSNA A. VENKAT whose telephone number is 571-272-0607. The examiner can normally be reached on Monday-Friday, 10:30-7:30:1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EYLER YVONNE (BONNIE) can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JYOTHSNA A VENKAT /
Primary Examiner, Art Unit 1619